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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,784	06/27/2001	Frank Bahren	Westphal.6311	9616

50811 7590 07/01/2008

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ART UNIT	PAPER NUMBER
2152	

MAIL DATE	DELIVERY MODE
07/01/2008	PAPER

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/892,784
Filing Date: June 27, 2001
Appellant(s): BAHREN ET AL.

Patrick J. O'Shea, Reg. No. 35,305
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 4/23/2008 appealing from the Office action mailed 10/16/2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

US Patent 6771663 Jha 8-2004

MOST Cooperation, "MOST Specification Framework Rev. 1.1," 1999, MOST Cooperation, Version 1.1-07, pgs. 1-60.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1> Claims 11, 14, 18 and 20 are rejected under 35 U.S.C § 103(a) as being unpatentable over Jha, U.S Patent No. 6.771.663.

2> As to claim 11, Jha discloses a host network, comprising:

a plurality of devices communicably coupled together, where the plurality of devices transmit and receive data telegrams within the host network [Figure 15], where the host network has a standard for the transmission of the data within the host network [Figure 7],

where the data telegram comprises:

a data section having a pair of regions, one region in the pair of regions containing data formatted in a first instance in accordance with an extraneous standard that is different than the host network standard, the first region containing data formatted in a second instance in accordance with the host network standard [Figure 7 | Figure 9 «item 274» | column 5 «lines 52-55» | column 7 «lines 39-60» where: the host network utilizes a SONET protocol. Jha discloses that the SONET packet contains a SONET payload (first region) that contains data formatted in a variety of protocols (second region that is within the first region)]; and

a header section that contains information specifying that the data within the first region of the data section are formatted in the first instance according to the extraneous standard and specifying that the data within the first region of the data section are formatted in the second instance according to the host network standard, where a second region in the pair of regions in the data section contains header information in the first instance associated with the extraneous standard specified by the information in the header section and in the second instance associated with the host network standard specified by the information in the header section, where a telegram identification portion of the header section that specifies an identification of data associated with the host network standard when the data in the first region of the data section is formatted in accordance with the host network standard in the second instance contains an identification of data associated with the extraneous standard in the first instance [Figure 7

«items 204a, 204b, 204c» | column 5 «line 67» to column 6 «line 5» | column 7 «lines 39-60» | column 9 «lines 55-60» | Figure 11 «item 302» | column 11 «lines 26-37»].

Jha also discloses a telegram length portion of the header section that specifies a length of the data associated with the host network standard when the data in the first region of the data section is formatted in accordance with the host network standard in the second instance [column 7 «lines 61-65» | column 10 «lines 27-30»] but does not expressly disclose that the portion no longer specifies the length of the data associated with the host network standard when the data in the first region of the data section is formatted in accordance with the extraneous standard.

However, this functionality is implied by Jha's disclosure. Jha discloses that the data in the data section of the telegram may be formatted in accordance with both host or extraneous standards [column 11 «lines 26-37»]. Thus, when the data is in accordance with the extraneous standard, the length portion specifies the length of the data of the extraneous standard and not the host standard. Therefore Jha implicitly discloses that the telegram length portion no longer specifies the length of the data associated with the host network standard when the data in the first region of the data section is formatted in accordance with the extraneous standard.

3> As to claim 14, Jha discloses the data telegram of claim 11, where the data telegram is divided into frames, the frames into blocks, and the blocks into bytes [Figure 7 | column 8 «lines 20-42»].

4> As to claim 18, Jha discloses the data telegram of claim 11, wherein the extraneous standard comprises Internet Protocol (IP) standard [column 7 «lines 46-49»].

5> As to claim 20, Jha discloses the data telegram of claim 11, where the header section of the data telegram is formatted in accordance with the host network standard [column 7 «lines 39-60» where the host network is SONET (use of the payload envelope)].

6> Claims 15 and 16 are rejected under 35 U.S.C § 103(a) as being unpatentable over Jha, in view of the MOST Specification Framework Rev. 1.1 ["MOST spec"].

7> As to claim 15, Jha does disclose a header section with the information contained in the header [column 9 «lines 20-30»] and the information is contained in a predetermined location in the header section [Figure 7 «item 206»] but does not specifically disclose a data telegram where the host network comprises a MOST network, where the host network standard comprises a standard associated with the MOST network.

8> The MOST spec discloses a data telegram wherein the first data transmission protocol is MOST and the host network standard is the MOST standard [section 2.1 | section 3 | section 6 ("MOST Frame Structure")]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the MOST protocol and standard in Jha's network to obtain MOST's advantages of increasing the speed of the network and decreasing cost of technology in automotive environments. Jha suggests this implementation as his network is fully compatible with current and future optical (fiber) networks [column 14 «lines 1-23»].

9> As to claim 16, Jha does disclose the host network in which data are transmitted by means of a telegram having a header section comprising a plurality of bytes [Figure 7 «items 200, 202»] and where the information is contained in a predetermined one of the plurality of bytes of the header section but does not explicitly disclose a MOST network or a MOST telegram.

10> In an analogous art, the MOST spec discloses a data telegram wherein the network is a MOST network in which data are transmitted by means of MOST telegrams having a header [section 2.1 | section 4 | section 6 ("MOST Frame Structure")]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the Jha's ring network and frames as a MOST network and MOST telegrams respectively, to obtain MOST's advantages and functionality of increasing the speed of the network and decreasing cost of technology in automotive environments.

11> Claims 17 and 19 are rejected under 35 U.S.C § 103(a) as being unpatentable over Jha, in view of in view of Flanders et al, U.S Patent No. 6.172.980 ["Flanders"].

12> As to claim 17, Jha discloses that his network is suited for transporting data of extraneous standards [column 14 «lines 24-30»], but does not explicitly disclose that the extraneous standard comprises a Transmission Control Protocol (TCP) standard.

13> Flanders teaches a data telegram wherein the extraneous standard is TCP [column 7 <lines 12-14>]. It would have been obvious to one of ordinary skill in the art to implement TCP as the extraneous standard for Jha's data telegram, as TCP is a ubiquitous standard in the network arts.

14> As to claim 19, Jha discloses that his network is suited for transporting data of extraneous standards and especially packets [column 14 «lines 24-30»], but does not explicitly disclose that the extraneous standard comprises an Internet Packet Exchange protocol (IPX) standard.

15> Flanders teaches a data telegram wherein the extraneous standard is IPX [column 6 <lines 8-11>]. It would have been obvious to one of ordinary skill in the art to implement IPX as the extraneous standard for Jha's data telegram, as IPX is a ubiquitous standard in the network arts.

16> Claims 21, 24-26 and 28-30 are rejected under 35 U.S.C § 103(a) as being unpatentable over the MOST spec, in view of Jha.

17> As to claims 21 and 28, the MOST spec discloses a data telegram for transmitting data within a MOST network having a MOST standard that defines the transmission of data within the MOST network [sections 2.1 and 2.4], the data telegram comprising:

a data section containing data formatted in a first instance in accordance with an extraneous standard that is different than the MOST standard, the first region containing data

formatted in a second instance in accordance with the MOST standard [section 2.5 | sections 5, 6.7, 6.8.(1-4) where : the MOST standard is compatible with a number of different protocols, the packets of which are transported to the various nodes using the MOST standard].

The MOST spec also discloses a header section having a plurality of bytes [section 5, page 31] but does not explicitly disclose that the header section has a predetermined region of which contains information specifying that the data section is formatted according to the extraneous standard, that the data section has a pair of regions, or the header section contains a telegram identification portion and a telegram length portion.

18> Similar to Jha, MOST spec is directed towards transporting various data types within container structures [section 6.6, section 9 : "equipment such as multimedia computers, analog audio gateways, multimedia CD players, hi-fi audio equipment, telecommunication terminals…etc, can all be networked to interact"]. As such, one of ordinary skill in the art would realize the need for a means of identification of the data stored in the containers so the destination nodes are aware of the kind of data they are receiving. Jha discloses a network similar to MOST [a hybrid data transport over optical networks].

Specifically, Jha discloses a data section having a pair of regions, one region in the pair of regions containing the data, and the second region containing header information associated with the extraneous standard specified in the header section [Figure 7 | column 7 «lines 39-60»]. Jha discloses a header section having a predetermined region that contains information specifying that the data within the first region of the data section are formatted in the first instance according to the extraneous standard and specifying that the data within the first region

of the data section are formatted in the second instance according to the host standard [column 8 «lines 49-63»], where a second region in the pair of the regions in the data section contains header information in the first instance associated with the extraneous standard specified by the information in the header section and in the second instance associated with the MOST standard specified by the information in the header section [Figure 7 | column 7 «lines 46-49»].

Jha also discloses a telegram identification portion and a telegram length portion within the header section [see claim 11 rejection, above]. The purpose of these portions are to enable the system to make appropriate decisions on how to handle the data contained within the telegram by determining the protocols and length of the packet [see Jha, Figure 11 | Figure 12].

Therefore, it would have been obvious to one of ordinary skill in the art to incorporate Jha's header functionality into MOST's header to enable identification of the multiple traffic types (standards) of the data payload. Further, it would have been obvious to incorporate Jha's data section with its pair of regions into MOST's data section to enable an increase in the data traffic capabilities of the MOST network.

19> As to claim 24, the MOST spec discloses the data telegram of claim 21, where the information is contained in the header section [section 5 – page 31], but does not explicitly state that the it is contained in the last byte of the header section.

20> Saito discloses a frame header that stores information of the kind of data in the last byte of the header section [column 1 «line 60» to column 2 «line 1»]. It would have been obvious to one of ordinary skill in the art to implement Flanders' header into the MOST header to

obtain the advantage of having a fixed location for the protocol identifier in the header; this way, the network devices can quickly locate the protocol type of the data.

21> As to claim 25, the MOST spec discloses the data telegram of claim 21, where the extraneous standard comprises a Transmission Control Protocol (TCP) standard [section 2.5 – see "MOST 'Open' Model" figure].

22> As to claim 26, the MOST spec discloses the data telegram of claim 21, wherein the extraneous standard comprises an Internet Protocol (IP) standard [section 2.5, section 9 – see "MOST 'Open' Model" figure and "multimedia computers"].

23> As to claim 28, the MOST spec discloses a MOST multimedia system comprising:

a plurality of multimedia devices communicably coupled through a communication path and defining a MOST network, where the MOST network includes a standard that defines transmission of data within the MOST network, and wherein the multimedia devices transmit and receive data telegrams within the MOST network standard [sections 2.1 and 2.4],

wherein the data telegram comprises:

a data section containing data formatted in accordance with a prescribable extraneous standard that is different than the MOST standard [section 2.5 | sections 5, 6.7, 6.8.(1-4)].

The MOST spec also discloses a header section having a plurality of bytes [section 5] but does not specifically disclose a header has a predetermined region that specifies that the data section is formatted according to the extraneous standard nor does he disclose a data section

having a pair of regions, one region in the pair of regions for the data, and where a second region in the pair of regions in the data section containing header information associated with the extraneous standard.

24> Similar to Jha, MOST spec is directed towards transporting various data types within container structures [section 6.6, section 9 : "equipment such as multimedia computers, analog audio gateways, multimedia CD players, hi-fi audio equipment, telecommunication terminals…etc, can all be networked to interact"]. As such, one of ordinary skill in the art would realize the need for a means of identification of the data stored in the containers so the destination nodes are aware of the kind of data they are receiving. Jha discloses a network similar to MOST [a hybrid data transport over optical networks], and specifically, a data section having a pair of regions, one region in the pair of regions containing the data, and the second region containing header information associated with the extraneous standard specified in the header section [Figure 7 | column 7 «lines 39-60»], as well as a header section having a predetermined region that contains information specifying that the data within the data section are formatted according to the extraneous standard [column 7 «lines 46-49»]. Therefore, it would have been obvious to one of ordinary skill in the art to incorporate Jha's header functionality into MOST's header to enable identification of the multiple traffic types (standards) of the data payload. Further, it would have been obvious to incorporate Jha'a data section with its pair of regions into MOST's data section to enable an increase in the data traffic capabilities of the MOST network.

25> As to claims 29 and 30, they do not teach or further define over the limitations recited in claims 24-26. Therefore, claims 29 and 30 are also rejected for the same reasons set forth in claims 24-26, supra.

26> Claim 27 is rejected under 35 U.S.C § 103(a) as being unpatentable over MOST and Jha, in further view of Flanders.

27> As to claim 27, the MOST spec discloses compatibility with a number of extraneous standards, including IP (see paragraph 32, section 9 : "telecommunication terminals"), but does not explicitly state that the extraneous standard is an Internet Packet Exchange (IPX) protocol standard.

28> Flanders discloses IPX as an extraneous standard for a data telegram [column 6 <lines 8-11>] where IPX and IP are compared to each other as routing protocols. Therefore, it would have been obvious to one of ordinary skill in the art to have implemented IPX as an extraneous standard into the MOST spec as well in addition to IP, as they are both routing protocols, and would have obtained the further advantage of being compatible with IPX.

(10) Response to Argument

I. THE §103(A) REJECTION OF CLAIMS 11, 14, 18, AND 20 SHOULD BE MAINTAINED BECAUSE JHA TEACHES THE LIMITATIONS AS CLAIMED.

Applicant argues that Jha fails to disclose the limitation that "portion of the header

section…no longer specifies the length of the data associated with the host network standard when the data in the first region of the data section are formatted in accordance with the extraneous standard." Specifically, Applicant argues that Jha fails to disclose a "host network standard" (Br. 4) because "Jha fails to teach that he network…contains any single type of 'standard', 'host' or otherwise" (Br. 5). Applicant's arguments should not be found persuasive because Jha's SONET network and protocol read on Applicant's claimed "host network standard."

A. The interpretation of Jha's HDT protocol and SONET network as reading on the claimed "host network standard" and "host network" respectively is consistent with Applicant's specification.

It should first be noted that while Applicant strongly emphasizes Jha's deficiency in expressly disclosing a "host network" or a "host network standard", Applicant's specification is also entirely devoid of these terms. Applicant's specification neither explicitly defines or describes these terms. Therefore, the claim term is given its broadest reasonable interpretation consistent with the specification.

Accordingly, Applicant's specification simply defines a standard as a protocol (Specification, pg. 2, ¶2 : "data telegrams which are formatted in accordance with standards or protocols"). Applicant's claimed host network standard, which seemingly refers to the MOST standard (Spec. pg. 3,¶5 : "[the method and telegram] make it possible...in an MOST multimedia system…to use not only MOST telegrams but also data telegrams formatted in accordance with a different standard"), simply "defines the format for data telegrams by means of which data are transmitted in a multimedia system" which is designed in accordance with the MOST standard" (Spec., pg. 2, ¶2).

Based on Applicant's own definition for a "standard", this Office action maintains that Applicant's Jha's SONET/HDT protocol meets the claimed limitation of a host network standard because the HDT protocol also defines the format for frames by means of which data transmitted through the underlying SONET network (column 6, lines 56-64). Like Applicant's MOST protocol, Jha's HDT protocol defines the format for the SONET frames by means which data are transmitted in the SONET network (Figure 7, column 8, lines 20-24). And because Jha's HDT protocol is used within a SONET network (column 6, lines 56-64), Jha's SONET network reads on the claimed limitation of a host network.

Jha discloses a SONET payload envelope; the "format" of this envelope in accordance with Jha's SONET/HDT protocol (Figure 7 | column 7 «lines 39-60» : describing the "format" of the SONET frame as containing a header as well as a SONET Path Over Head (POH) region). Jha discloses data placed within this envelope that are in accordance with different extraneous protocols (Figure 7 : PPP, IP, Frame Relay data). These components of the SONET frame, the header the POH region, the HDT headers (Fig. 9, 10) all suggest a frame that is formatted according to the protocol prescribed by the SONET network.

B. Jha teaches the data and header sections as claimed.

Looking again to Applicant's specification, Applicant describes a data telegram that has a header section corresponding to the MOST protocol (or standard) and the remainder of the telegram corresponding to data formatted in accordance with the TCP/IP protocol. Jha's SONET/HDT frame discloses the same kind of formatting. Jha's frame contains a header that is formatted according to the SONET/HDT protocol (Figure 7, item 202, column 9, lines 20-21). In other words, this header portion is critical in order for the frame to be properly delivered

within the SONET (host) network (column 7, lines 40-43: "deterministic packet transport protocol"). The remainder of the frame contains data formatted in accordance with protocols different from the HDT protocol (column 9, lines 55-58). Thus, while the frame header is formatted according to the HDT protocol, the frame also contains data formatted according to extraneous protocols. This extra data must be placed in a specific section of the envelope and in accordance with the host protocol (Figure 7, items 204a-204e).

Applicant's arguments for what is or is not a host network or host networking standard are not supported by Applicant's own specification. The interpretation of Jha's SONET network and HDT protocol as reading on the claimed terms "host network" and "host networking standard" is consistent with Applicant's specification. There is nothing in Applicant's claim language or specification that distinguish the claimed host network or host networking standard over Jha's host protocol and host network. Therefore, the rejection of claims 11, 14, 18, and 20 should be maintained as being unpatentable over Jha.

II. THE §103 REJECTION OF CLAIMS 21, 24-26 AND 28-30 UNDER THE MOST SPECIFICATION AND JHA SHOULD BE MAINTAINED BECAUSE THE REFERENCES TEACH THE LIMITATIONS AS CLAIMED.

As to the Jha reference, Applicant repeats the same arguments that were addressed above. As to the MOST reference, Applicant argues that the cited portions, pgs. 32-35, section 6, do not provide any description of the structure of a MOST frame nor does it disclose how to utilize different data standards or protocols used in a MOST network. Contrary to Applicant's argument, the MOST specification does disclose all of these features.

The MOST specification discloses throughout that the purpose of the MOST network is for its compatibility with devices that use different communications protocols (pg. 14, section

3.2.1: "MOST devices can be anything from complex applications…video players and receivers, keypads" and "MOST devices shall provide a standard interface in terms of their…communications mechanism" | pg. 17 : "MOST system supports *a variety of data types such as control data, packet data and synchronous stream data"*).

The MOST specification further describes the purpose of the MOST frame as to be designed to provide "compatibility with a number of existing communication and data transport requirements" (pg. 33, section 6.6,). Finally, the MOST specification discloses that "[a] MOST network can be used in conjunction with a number of different protocols" and is "very flexible in terms of compatibility with a number of protocol layers" (pg. 42, section 9).

To this end, the MOST specification discloses a data section containing data formatted in a first instance in accordance with an extraneous standard that is different than the MOST standard, the first region containing data formatted in a second instance in accordance with the MOST standard (pg. 34, section 6.7: the MOST frame contains 60 bytes for transporting asynchronous data, synchronous data and packet data). Based on the MOST spec's stated desire to be compatible and flexible with different protocols and the different sections within the MOST frame for synchronous and asynchronous data, it would have been obvious to one of ordinary skill in the art to have reasonably inferred that this section of the frame that transports different types of data are different from the MOST standard and are therefore formatted in an extraneous standard as required by Applicant's claims. This inference is further supported by the figure on page 33 which illustrates a possible MOST frame.

The MOST frame figure displays two icons in the shape of a person speaking into a microphone in the "Synchronous Channel" portion of the frame and an icon of a computer in the

"Asynchronous Transport" portion of the frame. These icons refer back to section 3.3 of the MOST specification (pg. 17). In this section, the icon of the person and microphone refers to real-time data while the computer icon refers to bulk or burst data. These differing data types clearly refer to different data standards that are being transferred within the MOST frame.

For the above reasons, it is believed that the rejections should be sustained.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Respectfully submitted,

/Dohm Chankong/
Examiner, Art Unit 2152

Date Submitted: June 24, 2008

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